UNITED STATES PATENT AND TRADEMARK OFFICE

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *21 April 2008*.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *18-24,26-34,36 and 38-46* is/are pending in the application.

   4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *18-24,26-34,36,40-42 and 44-46* is/are rejected.

7)☒ Claim(s) *38,39 and 43* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *28 September 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

   Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

   Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

   a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

   * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
     Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
     Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

1.   Claims 36 and 46 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

In reference to claim 36, claim 36 comprises the newly added limitation of the characteristic being a brightness behind the at least one input key (see last line of the claim). This limitation was not described in the specification in such a way to reasonably convey the limitation of explicitly providing brightness behind the at least one input <u>key.</u> The Office notes that canceled claim 37 explicitly disclosed adjusting brightness behind a plurality of input <u>buttons</u> which the specification explicitly differentiates from input keys (see paragraph 15 of the specification). Therefore, the Office deems such a limitation as not previously provided by the specification/drawings and hereby rejects the claim as per a new matter situation. Note, as per prior art rejections, the Office will do its best to interpret the new matter as per the prior art.

In reference to claim 46, claim 46 comprises the new limitation of providing at least one input key on a portion of the display (see lines 1-2 of claim 46). This limitation was not

described in the specification in such a way to reasonably convey the limitation providing input

keys on a portion of the display but does however convey providing input buttons which the

specification explicitly differentiates from input keys (see paragraph 15). Therefore, the Office

deems such a limitation as not previously provided by the specification/drawing and hereby

rejects the claim as per a new matter situation. Note, as per prior art rejections, the Office will

do its best to interpret the new matter as per the prior art, specifically, the Office will interpret

the at least one input key of claim 46 as at least one input button since its description matches

more of an input button than a key according to paragraph 15 of the specification.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness

rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

2.   Claims 18-20, 22-24, 27-31, 33, 34, 40 and 41 are rejected under 35 U.S.C. 103(a) as

being unpatentable over Kraft et al. (U.S. Patent 6,463,278 B2) in view of Helms (U.S. Patent

5,952,992).

In reference to claim 18, Kraft et al. discloses telephone automatic mode selection

method for implementation in a phone, connectable to both cellular and cordless networks), the

phone comprising a normal user interface including a display and keypad (see column 4, lines

58-67 and column 5, lines 1-2). Note, the Office interprets the phone of Kraft et al. functionally

equivalent to a "handheld computer" as Kraft et al. further discloses the phone comprising a CPU

(see column 4, lines 58-63). Also, the phone of Kraft et al. is interpreted as inherently

comprising, "a housing configured to be held in hand during use" since it is a telephone and

further inherently comprises a front surface of the housing which supports the phone display,

disclosed by Kraft et al. (see column 5, lines 1-2). One of ordinary skill in the art would surely

agree with such interpretations made by the Office since telephones are widely utilized and

available incorporating such limitations. Kraft et al. further discloses the CPU and coupled

circuitry to handle cellular telephone specific functions (see column 5, lines 26-43) and therefore

the Office interprets Kraft et al. to disclose the phone as comprising cellar telephone electronics.

Kraft et al. also discloses the phone to use control parameters to operate a timer function for

enabling a calendar function for entering of appointment data (see column 2, lines 15-21 and

column 4, lines 35-57). Note, the Office interprets the CPU (computing electronics) to handle

such calendar or PIM data functions since Kraft et al. discloses the CPU to handle the phone

modes (see column 6, lines 7-24). Kraft et al. discloses the phone to further comprise of a light

detector for detecting light conditions around the phone which are interpreted as being received

by the computing electronics (i.e. CPU and coupled circuitry of the phone) (see column 5, lines

44-52). Although Kraft et al. discloses a single light detector, Kraft et al. does not explicitly

disclose utilizing a plurality of light detectors. Helms discloses a method and apparatus for

automatically adjusting the brightness of an LCD based upon ambient lighting conditions of the

environment in which a laptop (handheld) computer is used (see column 2, lines 3-6, 8-18 and

Figure 1). Helms discloses computing a weighted average of measured signals obtained by

photodetectors (one on the front surface and another on the back surface of the display lid, see

Figure 4) and using the computed average to index a lookup table (see columns 4-5, lines 66-2).

Note, the Office interprets the weighted average of Helms functionally equivalent to Applicant's conditioned signal as the weighted average is based upon the average values of detected light measurements via the photodetectors. Again, this is seen as functionally equivalent to Applicant's description of the "condoned signal" (see paragraph 23). It would have been obvious to one of ordinary skill in the art at the time the invention was made to implement the automatic brightness controlling techniques of Helms with the phone system of Kraft et al. in order to provide the computing electronics with a better representation of ambient light levels directed towards the device by supplying the electronics with multiple samples derived from the multiple sensors, thus the multiple samples providing more light detection at or around the device than using only one reading from one sensor. Such is particularly useful in situations in which light is directed towards the back of the LCD, hence toward the user's eyes, which light, while affecting the visibility of the LCD, might not be detected by the first photodetector (see column 2, lines 32-36 of Helms).

In reference to claims 19, 20 and 30, Kraft et al. and Helms disclose all of the claim limitations as applied to claims 18 and 29 above in addition, Helms discloses utilizing signals from one or both of the photodetectors located on the front and back surface of the display lid, to adjust the brightness level of the LCD (see columns 4-5, lines 52-2). It would have been obvious to one of ordinary skill in the art at the time the invention was made to implement the automatic brightness controlling techniques of Helms with the phone system of Kraft et al. in order to provide the computing electronics with a better representation of ambient light levels directed towards the device by supplying the electronics with multiple samples derived from the multiple sensors, thus the multiple samples providing more light detection at or around the device than

using only one reading from one sensor. Such is particularly useful in situations in which light is

directed towards the back of the LCD, hence toward the user's eyes, which light, while affecting

the visibility of the LCD, might not be detected by the first photodetector (see column 2, lines

32-36 of Helms).

In reference to claim 22, Kraft et al. and Helms disclose all of the claim limitations as

applied to claim 18 above. Kraft et al. explicitly discloses the phone to use control parameters to

operate a timer function for enabling a calendar function for entering of appointment data (see

column 2, lines 15-21 and column 4, lines 35-57). Note, the Office interprets the CPU

(computing electronics) to handle such calendar or PIM data functions since Kraft et al. discloses

the CPU to handle the phone modes (see column 6, lines 7-24). Further, the Office interprets the

"contact" limitation of Applicant's claim to inherently be comprised with the phone device and

user interface disclosed by Kraft et al. since such feature, having a list of saved dialed phone

numbers is inherent to telephone devices. Lastly, Helms discloses a performing the brightness

processing techniques upon a laptop which is seen to inherently comprise of contact and calendar

applications. (see *Response to Arguments* below)

In reference to claim 23, Kraft et al. and Helms disclose all of the claim limitations as

applied to claim 22 above. Helms discloses performing the brightness processing techniques

upon a laptop which is seen to inherently comprise of such word processing, spreadsheets and

calculator applications.

In reference to claims 24, 33 and 34, Kraft et al. and Helms disclose all of the claim

limitations as applied to claims 18 and 29. Helms discloses a method and apparatus for

automatically adjusting the brightness of an LCD based upon ambient lighting conditions of the

environment in which a laptop (handheld) computer is used (see column 2, lines 3-6, 8-18 and

Figure 1). Helms discloses computing a weighted average of measured signals obtained by

photodetectors (one on the front surface and another on the back surface of the display lid, see

Figure 4) and using the computed average to index a lookup table (see columns 4-5, lines 66-2).

It would have been obvious to one of ordinary skill in the art at the time the invention was made

to implement the automatic brightness controlling techniques of Helms with the phone system of

Kraft et al. in order to provide the computing electronics with a better representation of ambient

light levels directed towards the device by supplying the electronics with multiple samples

derived from the multiple sensors, thus the multiple samples providing more light detection at or

around the device than using only one reading from one sensor. Such is particularly useful in

situations in which light is directed towards the back of the LCD, hence toward the user's eyes,

which light, while affecting the visibility of the LCD, might not be detected by the first

photodetector (see column 2, lines 32-36 of Helms).

In reference to claim 27, Kraft et al. and Helms disclose all of the claim limitations as

applied to claim 18 above. Although Helms does disclose performing the brightness processing

techniques upon a laptop, neither Kraft et al. nor Helms explicitly disclose the handheld

computer configured to comprise of a touch screen display however, at the time the invention

was made, it would have been obvious to one of ordinary skill in the art to the implement a

multitude of different types of displays (i.e. LCD of various pixel sizes, TFT, character matrix

LCD etc.) in the phone device of Kraft et al.. Applicant has not disclosed that specifically

providing such explicit type of display, touch screen display, provides an advantage, is used for a

particular purpose, or solves a stated problem. One of ordinary skill in the art, furthermore,

would have expected Applicant's invention to perform equally well with the display included in

the phone device of Kraft et al. or LCD of Helms, because the exact type of display included in a

phone/laptop device is seen as a matter decided upon by the inventor and to which best suits the

application at hand. Furthermore, the Office sees such a limitation as providing no immediate

criticality to the invention at hand since the real scope of the invention is seemed to be directed

to use of light sensors on a handheld device to adjust brightness/other parameters of the device

and because the implementation of a touch screen display in a phone/laptop device would not

affect the operation, as per the scope of the claims, of the device as a whole in view of the

sensing of light via such light sensors. Therefore, it would have been obvious to one of ordinary

skill in this art to modify the combination of Kraft et al. and Helms to obtain the invention as

specified in claim 27.

In reference to claims 28 and 31, Kraft et al. and Helms disclose all of the claim

limitations as applied to claims 18 and 30 respectively above. Helms discloses computing a

weighted average of measured signals obtained by photodetectors (one on the front surface and

another on the back surface of the display lid, see Figure 4) and using the computed average to

index a lookup table (see columns 4-5, lines 66-2). It would have been obvious to one of

ordinary skill in the art at the time the invention was made to implement the automatic brightness

controlling techniques of Helms with the phone system of Kraft et al. in order to provide the

computing electronics with a better representation of ambient light levels directed towards the

device by supplying the electronics with multiple samples derived from the multiple sensors,

thus the multiple samples providing more light detection at or around the device than using only

one reading from one sensor. Such is particularly useful in situations in which light is directed

towards the back of the LCD, hence toward the user's eyes, which light, while affecting the

visibility of the LCD, might not be detected by the first photodetector (see column 2, lines 32-36

of Helms).

In reference to claim 29, Kraft et al. discloses telephone automatic mode selection

method for implementation in a phone, connectable to both cellular and cordless networks), the

phone comprising a normal user interface including a display and keypad (see column 4, lines

58-67 and column 5, lines 1-2). Note, the Office interprets the phone of Kraft et al. functionally

equivalent to a "handheld computer" as Kraft et al. further discloses the phone comprising a CPU

(see column 4, lines 58-63). Also, the phone of Kraft et al. is interpreted as inherently

comprising, "a housing configured to be held in hand during use" since it is a telephone and

further inherently comprises a front surface of the housing which supports the phone display,

disclosed by Kraft et al. (see column 5, lines 1-2). One of ordinary skill in the art would surely

agree with such interpretations made by the Office since telephones are widely utilized and

available incorporating such limitations. Kraft et al. further discloses the CPU and coupled

circuitry to handle cellular telephone specific functions (see column 5, lines 26-43) and therefore

the Office interprets Kraft et al. to disclose the phone as comprising cellar telephone electronics.

Kraft et al. also discloses the phone to use control parameters to operate a timer function for

enabling a calendar function for entering of appointment data (see column 2, lines 15-21 and

column 4, lines 35-57). Note, the Office interprets the CPU (computing electronics) to handle

such calendar or PIM data functions since Kraft et al. discloses the CPU to handle the phone

modes (see column 6, lines 7-24) such phone modes including setting call divert services, light,

sound volume, call alert and ringing volumes (see column 2, lines 57-60 and Table1) which the

Office further interprets equivalent to the "other applications" limitation of the claims since such

modes must be executed and parameters selected and applied thereto via user operation. Further,

the Office interprets the "contact" limitation of Applicant's claim to inherently be comprised

with the phone device and user interface disclosed by Kraft et al. since such feature, having a list

of saved dialed phone numbers is inherent to telephone devices. Kraft et al. discloses the phone

to further comprise of a light detector for detecting light conditions around the phone which are

interpreted as being received by the computing electronics (i.e. CPU and coupled circuitry of the

phone) (see column 5, lines 44-52). Although Kraft et al. discloses a single light detector, Kraft

et al. does not explicitly disclose the light detector adjusting a characteristic of the handheld

device. Helms discloses a method and apparatus for automatically adjusting the brightness of an

LCD based upon ambient lighting conditions of the environment in which a laptop (handheld)

computer is used (see column 2, lines 3-6, 8-18 and Figure 1). Helms discloses computing a

weighted average of measured signals obtained by photodetectors (one on the front surface and

another on the back surface of the display lid, see Figure 4) and using the computed average to

index a lookup table (see columns 4-5, lines 66-2). It would have been obvious to one of

ordinary skill in the art at the time the invention was made to implement the automatic brightness

controlling techniques of Helms with the phone system of Kraft et al. in order to provide the

computing electronics with a better representation of ambient light levels directed towards the

device by supplying the electronics with multiple samples derived from the multiple sensors,

thus the multiple samples providing more light detection at or around the device than using only

one reading from one sensor. Such is particularly useful in situations in which light is directed

towards the back of the LCD, hence toward the user's eyes, which light, while affecting the

visibility of the LCD, might not be detected by the first photodetector (see column 2, lines 32-36

of Helms). Although Helms discloses utilizing signals from one or both of the photodetectors

located on the front and back surface of the display lid, to adjust the brightness level of the LCD

(see columns 4-5, lines 52-2), neither Kraft et al. nor Helms explicitly disclose the capability of

adjusting the brightness behind input buttons. Dutta discloses a PDA comprising a housing (see

large rectangle of Figure 1) and a display, having a front surface, supported by the housing (#101

of Figure 1). Dutta also discloses hardware components located within the PDA, and thus

supported by the housing, utilized to communicate with the display (see page 2, paragraph 24

and Figure 2). Dutta discloses the hardware components configured to adjust both backlight and

contrast display values (see Figure 8). Dutta also discloses the PDA to possibility comprise of a

touchscreen and capable of adjusting brightness using the touchscreen (see paragraph 3).

Further, the touchscreen of Dutta is seen as inherently comprising input buttons defined on the

touchscreen and which are therefore also backlight adjustable with the display screen since they

are apart of the display screen. Therefore, it would have been obvious to one of ordinary skill in

the art at the time the invention was made to implement the touchscreen type display of Dutta

with the automatic brightness signal controlling techniques of Helms and the phone system of

Kraft et al. in order to provide adjustable the readability of text on a mobile/handheld display

device particularly when environmental conditions are changing (see last 4 lines of paragraph 3

of Dutta). Further, although Dutta does inherently disclose input buttons, as part of the

touchscreen display of the PDA, such input buttons are not explicitly disclosed as provided in

fixed positions. At the time the invention was made, it would have been obvious to one of

ordinary skill in the art to modify the touchscreen interface of Dutta to include touchscreen

buttons that are provided at fixed positions (i.e. a power button, clock button) on the display.

Applicant has not disclosed that specifically fixing such buttons on the display provides an

advantage, is used for a particular purpose, or solves a stated problem. One of ordinary skill in

the art, furthermore, would have expected Applicant's invention to perform equally well with the

inherent touchscreen interface buttons of Dutta because the inherent buttons of Dutta provide for

a more customized interface of input buttons than fixed buttons. Providing fixed buttons does

however provide an easy-to-access point of executing familiar commands on a system. Thus the

exact positioning of buttons on an interface, relative to a display, is seen as a matter decided

upon by the inventor and to which best suits the application at hand since a designer may believe

to exclaim the design and look of the system over the ease of functionality or vice-versa.

Therefore, it would have been obvious to one of ordinary skill in this art to modify combination

of Kraft, Helmes and Dutta to obtain the invention as specified in claim 29.

    In reference to claims 40 and 41, Kraft et al. and Helms disclose all of the claim

limitations as applied to claim 18 above. Although both Kraft et al. and Helms disclose light

sensors provided on a front surface of a device housing, neither explicitly disclose the plurality

of light sensors provided on the same surface of the housing. At the time the invention was

made, it would have been obvious to one of ordinary skill in the art to mount multiple light

sensors on the same surface of a device, utilizing the photodetector measurement/averaging

techniques of Helms to obtain a more accurate reading of light affecting the viewability of the

device because as is well known in the art of computer processing, many data samples provides

more detail than a single sample (Official Notice). Therefore, providing many photodetector

measurements as opposed to one measurement, would provide a more accurate reading of

surrounding light thereby leading to a more enjoyable display of data from the device.

3.   Claims 21, 26, 32, 42, 44 and 45 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Kraft et al. (U.S. Patent 6,463,278 B2), Helms (U.S. Patent 5,952,992) and

further in view of Dutta (U.S. Pub 2002/0163524).

        In reference to claims 21 and 32, Kraft et al. and Helms disclose all of the claim

limitations as applied to claims 19 and 29 respectively above. Although Helms discloses

utilizing signals from one or both of the photodetectors located on the front and back surface of

the display lid, to adjust the brightness level of the LCD (see columns 4-5, lines 52-2), neither

Kraft et al. nor Helms explicitly disclose adjusting one other characteristic of the handheld

computer based on the signals from at least one light sensor. Dutta discloses a PDA comprising

a housing (see large rectangle of Figure 1) and a display, having a front surface, supported by the

housing (#101 of Figure 1). Dutta also discloses hardware components located within the PDA,

and thus supported by the housing, utilized to communicate with the display (see page 2,

paragraph 24 and Figure 2). Dutta discloses the hardware components configured to adjust both

backlight and contrast display values (see Figure 8). It would have been obvious to one of

ordinary skill in the art to implement the contrast adjusting techniques of Dutta with the

automatic brightness controlling techniques of Helms and the phone system of Kraft et al. in

order to completely fine tune, via the modification of multiple display characteristics, the

readability of text on a mobile/handheld display device particularly when environmental

conditions are changing (see last 4 lines of paragraph 3 of Dutta).

In reference to claim 26, Kraft et al. and Helms disclose all of the claim limitations as

applied to claim 18 above. Although Helms discloses utilizing signals from one or both of the

photodetectors located on the front and back surface of the display lid, to adjust the brightness

level of the LCD (see columns 4-5, lines 52-2), neither Kraft et al. nor Helms explicitly disclose

the capability of adjusting the brightness behind input buttons. Dutta discloses a PDA

comprising a housing (see large rectangle of Figure 1) and a display, having a front surface,

supported by the housing (#101 of Figure 1). Dutta also discloses hardware components located

within the PDA, and thus supported by the housing, utilized to communicate with the display

(see page 2, paragraph 24 and Figure 2). Dutta discloses the hardware components configured to

adjust both backlight and contrast display values (see Figure 8). Dutta also discloses the PDA to

possibility comprise of a touchscreen and capable of adjusting brightness using the touchscreen

(see paragraph 3). Further, the touchscreen of Dutta is seen as inherently comprising input

buttons defined on the touchscreen and which are therefore also backlight adjustable with the

display screen since they are apart of the display screen. Therefore, it would have been obvious

to one of ordinary skill in the art at the time the invention was made to implement the

touchscreen type display of Dutta with the automatic brightness signal controlling techniques of

Helms and the phone system of Kraft et al. in order to provide adjustable the readability of text

on a mobile/handheld display device particularly when environmental conditions are changing

(see last 4 lines of paragraph 3 of Dutta). Further, although Dutta does inherently disclose input

buttons, as part of the touchscreen display of the PDA, such input buttons are not explicitly

disclosed as provided in fixed positions. At the time the invention was made, it would have been

obvious to one of ordinary skill in the art to modify the touchscreen interface of Dutta to include

touchscreen buttons that are provided at fixed positions (i.e. a power button, clock button) on the

display. Applicant has not disclosed that specifically fixing such buttons on the display provides

an advantage, is used for a particular purpose, or solves a stated problem. One of ordinary skill

in the art, furthermore, would have expected Applicant's invention to perform equally well with

the inherent touchscreen interface buttons of Dutta because the inherent buttons of Dutta provide

for a more customized interface of input buttons than fixed buttons. Providing fixed buttons

does however provide an easy-to-access point of executing familiar commands on a system.

Thus the exact positioning of buttons on an interface, relative to a display, is seen as a matter

decided upon by the inventor and to which best suits the application at hand since a designer may

believe to exclaim the design and look of the system over the ease of functionality or vice-versa.

Therefore, it would have been obvious to one of ordinary skill in this art to modify combination

of Kraft, Helmes and Dutta to obtain the invention as specified in claim 26.

In reference to claims 42, 44 and 45, Kraft et al., Helms and Dutta disclose all of the

claim limitations as applied to claim 32 above. Helms discloses computing a weighted average

of measured signals obtained by photodetectors (one on the front surface and another on the back

surface of the display lid, see Figure 4) and using the computed average to index a lookup table

(see columns 4-5, lines 66-2). Note, the Office interprets the weighted average of Helms

functionally equivalent to Applicant's conditioned signal as the weighted average is based upon

the average values of detected light measurements via the photodetectors. Again, this is seen as

functionally equivalent to Applicant's description of the "condoned signal" (see paragraph 23).

4.   Claim 36 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kraft et al. (U.S.

Patent 6,463,278 B2), Helms (U.S. Patent 5,952,992) and further in view of Yamauchi et al.

(U.S. Patent 6,798,395).

        In reference to claim 36, Kraft et al. discloses telephone automatic mode selection

method for implementation in a phone, connectable to both cellular and cordless networks), the

phone comprising a normal user interface including a display and keypad (see column 4, lines

58-67 and column 5, lines 1-2). Note, the Office interprets the phone of Kraft et al. functionally

equivalent to a "handheld computer" as Kraft et al. further discloses the phone comprising a CPU

(see column 4, lines 58-63). Also, the phone of Kraft et al. is interpreted as inherently

comprising, "a housing configured to be held in hand during use" since it is a telephone and

further inherently comprises a front surface of the housing which supports the phone display,

disclosed by Kraft et al. (see column 5, lines 1-2). One of ordinary skill in the art would surely

agree with such interpretations made by the Office since telephones are widely utilized and

available incorporating such limitations. Kraft et al. further discloses the CPU and coupled

circuitry to handle cellular telephone specific functions (see column 5, lines 26-43) and therefore

the Office interprets Kraft et al. to disclose the phone as comprising cellar telephone electronics.

Kraft et al. also discloses the phone to use control parameters to operate a timer function for

enabling a calendar function for entering of appointment data (see column 2, lines 15-21 and

column 4, lines 35-57). Note, the Office interprets the CPU (computing electronics) to handle

such calendar or PIM data functions since Kraft et al. discloses the CPU to handle the phone

modes (see column 6, lines 7-24) such phone modes including setting call divert services, light,

sound volume, call alert and ringing volumes (see column 2, lines 57-60 and Table1) which the

Office further interprets equivalent to the "other applications" limitation of the claims since such

modes must be executed and parameters selected and applied thereto via user operation. Further,

the Office interprets the "contact" limitation of Applicant's claim to inherently be comprised

with the phone device and user interface disclosed by Kraft et al. since such feature, having a list

of saved dialed phone numbers is inherent to telephone devices. Kraft et al. discloses the phone

to further comprise of a light detector for detecting light conditions around the phone which are

interpreted as being received by the computing electronics (i.e. CPU and coupled circuitry of the

phone) (see column 5, lines 44-52). Although Kraft et al. discloses a single light detector, Kraft

et al. does not explicitly disclose the light detector adjusting a characteristic of the handheld

device. Helms discloses a method and apparatus for automatically adjusting the brightness of an

LCD based upon ambient lighting conditions of the environment in which a laptop (handheld)

computer is used (see column 2, lines 3-6, 8-18 and Figure 1). Helms discloses computing a

weighted average of measured signals obtained by photodetectors (one on the front surface and

another on the back surface of the display lid, see Figure 4) and using the computed average to

index a lookup table (see columns 4-5, lines 66-2). It would have been obvious to one of

ordinary skill in the art at the time the invention was made to implement the automatic brightness

controlling techniques of Helms with the phone system of Kraft et al. in order to provide the

computing electronics with a better representation of ambient light levels directed towards the

device by supplying the electronics with multiple samples derived from the multiple sensors,

thus the multiple samples providing more light detection at or around the device than using only

one reading from one sensor. Such is particularly useful in situations in which light is directed

towards the back of the LCD, hence toward the user's eyes, which light, while affecting the

visibility of the LCD, might not be detected by the first photodetector (see column 2, lines 32-36 of Helms). Although, the Office interprets that the phone device as disclosed by Kraft et al. inherently comprises input buttons, as a keypad (see column 5, lines 1-2), below the display in fixed positions relative to the display and further, such a keypad can also be interpreted as provided in a fixed position relative to the display as the buttons are not inherently moveable, Kraft et al. nor Helms explicitly disclose adjusting a brightness behind the keypad however Yamauchi et al. does. Yamauchi et al. discloses an information terminal device comprising backlight control for a display and keypad of the device using an optical sensor (see column 1, lines 47-57, column 2, lines 55-65 and Figure 1). It would have been obvious to one of ordinary skill in the art at the time the invention was made to implement the keypad lighting techniques of Yamauchi et al. with the automatic brightness controlling techniques of Helms and phone system of Kraft et al. in order to provide an easier to use mobile terminal device by allowing for input keys and/or display to be viewed in many types of ambient lighting conditions.

5.   Claim 46 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kraft et al. (U.S. Patent 6,463,278 B2), Helms (U.S. Patent 5,952,992), Yamauchi et al. (U.S. Patent 6,798,395) and further in view of Dutta (U.S. Pub 2002/0163524).

        In reference to claim 46, Kraft et al., Helms and Yamauchi et al. disclose all of the claim limitations as applied to claim 36 above. Although Helms discloses utilizing signals from one or both of the photodetectors located on the front and back surface of the display lid, to adjust the brightness level of the LCD (see columns 4-5, lines 52-2), neither Kraft et al. nor Helms explicitly disclose the capability of adjusting the brightness behind input buttons. Dutta discloses a PDA comprising a housing (see large rectangle of Figure 1) and a display, having a

front surface, supported by the housing (#101 of Figure 1). Dutta also discloses hardware

components located within the PDA, and thus supported by the housing, utilized to communicate

with the display (see page 2, paragraph 24 and Figure 2). Dutta discloses the hardware

components configured to adjust both backlight and contrast display values (see Figure 8). Dutta

also discloses the PDA to possibility comprise of a touchscreen and capable of adjusting

brightness using the touchscreen (see paragraph 3). Further, the touchscreen of Dutta is seen as

inherently comprising input buttons defined on the touchscreen and which are therefore also

backlight adjustable with the display screen since they are apart of the display screen. Therefore,

it would have been obvious to one of ordinary skill in the art at the time the invention was made

to implement the touchscreen type display of Dutta with the keypad brightness control of

Yamauchi et al., automatic brightness signal controlling techniques of Helms and phone system

of Kraft et al. in order to provide adjustable the readability of text on a mobile/handheld display

device particularly when environmental conditions are changing (see last 4 lines of paragraph 3

of Dutta).

Response to Arguments

6.   The Office notes the cancellation of claims 25, 35 and 37 along with the addition of

claims 38-46.

7.   Note claim 36 is newly rejected using Kraft et al., Helms and Yamauchi et al. since the

input keys limitations were extensively modified so that the input keys differentiate from the

input buttons of Applicant's invention (see paragraph 15 of the specification).

8.   Applicant's arguments filed 04/21/08 have been fully considered but they are not
persuasive.

In reference to independent claim 18 (and therefore all dependent upon claim 18 claims),
Applicant argues that one of ordinary skill in the art would not have been motivated to combine
the teachings of Helms with the teachings of Kraft et al. to arrive at the subject matter of
independent claim 18 (see pages 7-8 of Applicant's Remarks). Specifically, Applicant's basis
for such reasoning is the fact that handheld devices are subject to space constraints not associated
with laptops and other less portable devices such that the structure of handheld devices is
typically more complex than that of laptop computers and the operation of handheld devices can
often be confusing to users. Therefore, one of ordinary skill in the art would not want to increase
the complexity of the structure of Kraft by adding an additional photodetector (see page 8 of
Applicant's Remarks).

In response, the Office disagrees. Firstly, in response to Applicant's argument that there
is no suggestion to combine the references, the examiner recognizes that obviousness can only be
established by combining or modifying the teachings of the prior art to produce the claimed
invention where there is some teaching, suggestion, or motivation to do so found either in the
references themselves or in the knowledge generally available to one of ordinary skill in the art.
See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988)and *In re Jones*, 958 F.2d 347,
21 USPQ2d 1941 (Fed. Cir. 1992). In this case, Kraft et al. discloses a telephone comprising a
normal user interface including a display and keypad and a light detector for detecting light
conditions around the phone which are interpreted as being received by the computing
electronics. Helms discloses a method and apparatus for automatically adjusting the brightness

of an LCD based upon ambient lighting conditions of the environment in which a laptop computer is used, utilizing multiple light sensors. Both Kraft et al. and Helms utilize light detectors/sensors for controlling/adjusting the display of the devices. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to implement the automatic brightness controlling techniques of Helms with the phone system of Kraft et al. in order to provide the computing electronics with a better representation of ambient light levels directed towards the device by supplying the electronics with multiple samples derived from the multiple sensors, thus the multiple samples providing more light detection at or around the device than using only one reading from one sensor. Such is particularly useful in situations in which light is directed towards the back of the LCD, hence toward the user's eyes, which light, while affecting the visibility of the LCD, might not be detected by the first photodetector (see column 2, lines 32-36 of Helms).

Secondly, in view of Applicant's specific remarks regarding the complexity of the structure produced by the combination of Kraft et al. and Helms, the Office supplies previously cited Katada (U.S. Patent 5,933,089) to provide proof that the addition of another light sensor in such a handheld device as portable to the phone of Kraft et al., was known at the time the invention. Note, Katada is only provided to rebut Applicant's Remarks and is no way intended to be utilized as prior art as applied in the rejection above against the claims. It can be seen that, Katada discloses a pager device, having similar if not reduced portability than the telephone of Kraft et al., that comprises multiple photo sensors (see Figures 1-3). Further, it can be seen that the complexity of such a device, in view of user interaction, is minimized with only a few input buttons (see #13 of Figure 2) and in view of hardware, comparing Figures 1 of both Katada and

Kraft et al., yield similar components/structure. In other words, the Office disagrees with

Applicant's statement that the addition of a second sensor would create a great complexity for

the system/device. Surely, with any addition of hardware, interfacing to existing components

must be made however this, in the opinion of the Office, is not seen as a great complexity that

would burden or discourage the combination of Kraft et al. and Helms. Therefore, the Office

maintains its rejection based upon Kraft et al. and Helms.

Also, in reference to independent claims 29 and 36 (and therefore all dependent upon

claims 29 and 36 claims), Applicant argues that Dutta does not disclose the touchscreen buttons

configured in fixed positions relative to the display (see page 9 of Applicant's Remarks).

In response, the Office reiterates the above rejection of these claims. Although Dutta

does inherently disclose input buttons, as part of the touchscreen display of the PDA, such input

buttons are not explicitly disclosed as provided in fixed positions. At the time the invention was

made, it would have been obvious to one of ordinary skill in the art to modify the touchscreen

interface of Dutta to include touchscreen buttons that are provided at fixed positions (i.e. a power

button, clock button) on the display. Applicant has not disclosed that specifically fixing such

buttons on the display provides an advantage, is used for a particular purpose, or solves a stated

problem. One of ordinary skill in the art, furthermore, would have expected Applicant's

invention to perform equally well with the inherent touchscreen interface buttons of Dutta

because the inherent buttons of Dutta provide for a more customized interface of input buttons

than fixed buttons. Providing fixed buttons does however provide an easy-to-access point of

executing familiar commands on a system. Thus the exact positioning of buttons on an interface,

relative to a display, is seen as a matter decided upon by the inventor and to which best suits the

application at hand since a designer may believe to exclaim the design and look of the system

over the ease of functionality or vice-versa. Therefore, it would have been obvious to one of

ordinary skill in this art to modify combination of Kraft, Helmes and Dutta to obtain the

invention as specified in claims 29 and 36.

Allowable Subject Matter

9.   Claims 38, 39 and 43 are objected to as being dependent upon a rejected base claim, but

would be allowable if rewritten in independent form including all of the limitations of the base

claim and any intervening claims.

       The prior art of record does not explicitly disclose generating a conditioned signal by

ignoring a signal from one of the plurality of light sensors, in combination with the further

limitations of the above claim's independent claim limitations.

Conclusion

       Applicant's amendment necessitated the new ground(s) of rejection presented in this

Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

       A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within TWO

MONTHS of the mailing date of this final action and the advisory action is not mailed until after

the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the date of this

final action.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Antonio Caschera whose telephone number is (571) 272-7781.

The examiner can normally be reached Monday-Thursday and alternate Fridays between 7:00

AM and 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Kee Tung, can be reached at (571) 272-7794.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

571-273-8300 (Central Fax)

Any inquiry of a general nature or relating to the status of this application or proceeding

should be directed to the Technology Center 2600 Customer Service Office whose telephone

number is (571) 272-2600.

/Antonio A Caschera/

Examiner, Art Unit 2628

Temporary Full Signatory Authority

7/2/08